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SOUTHERN COMPANY
Energy to Serve Your World℠

May 22, 2004

Docket No.: 50-424

NL-04-0871

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D. C. 20555-0001

Vogtle Electric Generating Plant
Licensee Event Report 1-2004-001
Manual Reactor Trip Following
Loss of Main Feedwater Pump Speed Control

Ladies and Gentlemen:

In accordance with the requirements of 10 CFR 50.73, Southern Nuclear Operating Company hereby submits a Vogtle Electric Generating Plant licensee event report for a condition that occurred on March 27, 2004.

If you have any questions, please advise.

Sincerely,

Jeffrey T. Gasser

JTG/TDH/daj

Enclosures: LER 1-2004-001

cc: Southern Nuclear Operating Company
Mr. J. B. Beasley, Jr., Executive Vice President
Mr. W. F. Kitchens, General Manager – Plant Vogtle
Mr. M. Sheibani, Engineering Supervisor – Plant Vogtle
RType: CVC7000

U. S. Nuclear Regulatory Commission
Mr. L. A. Reyes, Regional Administrator
Mr. C. Gratton, NRR Project Manager – Vogtle
Mr. J. Zeiler, Senior Resident Inspector – Vogtle

IE22

NRC FORM 366 (7-2001) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB NO. 3150-0104 EXPIRES 7/31/2004

Estimated burden per response to comply with this mandatory information collection request: 50 hrs. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the Records Management Branch (T-6 E6), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to bjs1(@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202 (3150-0104), Office of Management and Budget, Washington, DC 20503. If a means used to impose information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to,

LICENSEE EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

1. FACILITY NAME	2. DOCKET NUMBER	3. PAGE
Vogtle Electric Generating Plant – Unit 1	05000-424	1 OF 4

4. TITLE

Manual Reactor Trip Following Loss of Main Feedwater Pump Speed Control

5. EVENT DATE			6. LER NUMBER			7. REPORT DATE			8. OTHER FACILITIES INVOLVED	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER(S)
03	27	2004	2004	001	00	05	22	04		05000
									FACILITY NAME	DOCKET NUMBER(S)
										05000

9. OPERATING MODE	1
10. POWER LEVEL	35

11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check all that apply)

20.2201(b)	20.2203(a)(3)(ii)	50.73(a)(2)(ii)(B)	50.73(a)(2)(ix)(A)
20.2201(d)	20.2203(a)(4)	50.73(a)(2)(iii)	50.73(a)(2)(x)
20.2203(a)(1)	50.36(c)(1)(i)(A)	X 50.73(a)(2)(iv)(A)	73.71(a)(4)
20.2203(a)(2)(i)	50.36(c)(1)(ii)(A)	50.73(a)(2)(v)(A)	73.71(a)(5)
20-2203(a)(2)(ii)	50.36(c)(2)	50.73(a)(2)(v)(B)	OTHER
20-2203(a)(2)(iii)	50.46(a)(3)(ii)	50.73(a)(2)(v)(C)	Specify in Abstract below or in NRC Form 366A
20.2203(a)(2)(iv)	50.73(a)(2)(i)(A)	50.73(a)(2)(v)(D)	
20.2203(a)(2)(v)	50.73(a)(2)(i)(B)	50.73(a)(2)(vii)	
20.2203(a)(2)(vi)	50.73(a)(2)(i)(C)	50.73(a)(2)(viii)(A)	
20.2203(a)(3)(i)	50.73(a)(2)(ii)(A)	50.73(a)(2)(viii)(B)	

12. LICENSEE CONTACT FOR THIS LER

NAME	TELEPHONE NUMBER (Include Area Code)
Mehdi Sheibani, Nuclear Safety and Compliance	(706) 826-3209

13. COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX
A	SJ	HCU	G084	Y					

14. SUPPLEMENTAL REPORT EXPECTED			15. EXPECTED SUBMISSION DATE	MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE)	X	NO				

16. ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines)

On March 27, 2004, at 2110 EST, control room operators tied the generator to the grid. At 2150 EST, an operator observed steam flow/feed flow mismatch alarms and noticed that the speed of the inservice main feed pump, MFP B, was increasing. The feed pump speed control was switched from automatic to manual, but to no effect. Operators then changed speed control systems. This also had no effect on the increasing speed, and steam generator (SG) water levels began to fluctuate. Operators manually tripped the reactor at 2205 EST. The operators then tripped MFP B and the auxiliary feedwater system (AFW) actuated. The unit was stabilized in Mode 3 (Hot Standby) at 2209 EST.

The cause of this event was a control valve hydraulic operating cylinder sticking in the open position so that the speed of the feed pump turbine could not be controlled. The valve stuck open due to misalignment of the hydraulic cylinder shaft with bushings in the cylinder cover. The bushings were properly aligned, the feed pump returned to service, and the reactor returned to normal power operations.

A. REQUIREMENT FOR REPORT

This event is reportable per 10 CFR 50.73 (a)(2)(iv) because an unplanned reactor protection system actuation occurred.

B. UNIT STATUS AT TIME OF EVENT

At the time of this event, Unit 1 was in power ascension in Mode 1 (power operations) at 35 percent of rated thermal power. The generator was tied to the grid and the Main Feedwater system was supplying water to all four steam generators. Other than that described herein, there was no inoperable equipment that contributed to the occurrence of this event.

C. DESCRIPTION OF EVENT

On March 27, 2004, at 2110 EST, control room operators tied the generator to the grid. At 2150 EST, an operator observed steam flow / feed flow mismatch alarms and noticed that the speed of the inservice main feed pump, MFP B, was increasing. The feed pump speed control was switched from automatic to manual, but to no effect. Operators then changed speed control systems. This also had no effect on the increasing speed, and steam generator (SG) water levels began to fluctuate. Operators manually tripped the reactor at 2205 EST. The operators then tripped MFP B and the auxiliary feedwater system (AFW) actuated. The unit was stabilized in Mode 3 (Hot Standby) at 2209 EST.

D. CAUSE OF EVENT

The cause of this event was a control valve hydraulic operating cylinder sticking in the open position so that the speed of the feed pump turbine could not be controlled. The valve stuck open due to misalignment of the hydraulic cylinder shaft with bushings in the cylinder cover. Discussions with vendor personnel determined that a technique exists to ensure the alignment of the upper and lower bushings on the hydraulic cylinder shaft following bushing installation. However, this technique was not utilized in the site instruction for rebuilding the valve. Previously, vendor personnel had been contracted to perform the valve rebuilding. The vendor considered the bushing alignment technique that was used to be a "skill-of-the-craft." More recently, site personnel had begun to perform the valve rebuilding, but the site instruction did not adequately address the necessity for using a bushing alignment technique.

A contributing cause of this event was the failure of control room personnel to recognize a higher-than-normal MFP B differential pressure prior to the start of the event. Had this been recognized, the control valve problem may have been diagnosed earlier and MFP B swapped for MFP A.

E. ANALYSIS OF EVENT

As the steam flow / feed flow mismatch problem continued, control room personnel acted appropriately to trip the reactor and prevent a challenge to the automatic trip actuation circuitry. They also performed appropriately in tripping MFP B, which initiated the auxiliary feedwater system actuation, as designed. Based on these considerations, there was no adverse effect on plant safety or on the health and safety of the public as a result of this event.

The event does not represent a safety system functional failure.

F. CORRECTIVE ACTIONS

1) The MFP B control valve hydraulic operating cylinder bushings were properly aligned, the control valve returned to service, and the reactor returned to normal power operations.

2) The valve rebuilding site instruction has been revised to incorporate the proper bushing alignment technique.

3) The Unit 2 MFP control valve hydraulic operating cylinders were assembled utilizing the proper bushing alignment technique. The Unit 1 MFP A control valve hydraulic operating cylinder will be inspected during the Spring 2005 refueling outage.

4) Maintenance and engineering personnel are evaluating the scope and extent of site instruction and procedure development for activities that were previously performed by turbine-generator vendor personnel. The key activities are expected to be identified by June 30, 2004, and a schedule for procedure changes will be developed by December 31, 2004.

5) Licensed operators will review this event in continuing training, emphasizing the importance of maintaining a questioning attitude when abnormal conditions or parameters are encountered.

FACILITY NAME (1)	DOCKET	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL YEAR	REVISION NUMBER	
Vogtle Electric Generating Plant - Unit 1	05000-424	2004	-- 001 --	00	4 OF 4

TEXT *(If more space is required, use additional copies of NRC Form 366A)* (17

G. ADDITIONAL INFORMATION

1) Failed Components:
Control valve hydraulic cylinder manufactured by General Electric Corporation, Type DEV631, 6 stage dual inlet turbine, secondary operating cylinder 501E431DY-63.

2) Previous Similar Events:
None

3) Energy Industry Identification System Code:
Main Feedwater System – SJ
Auxiliary Feedwater System – BA